

In the Claims:

Claim 1. (Currently Amended) ~~A shaped charge~~ An apparatus for use in a wellbore extending through a subterranean formation, the apparatus comprising:

~~a casing for a shaped charge;~~
a perforating tool having a plurality of casings, each casing having a shaped charge;
an explosive material disposed within ~~the~~ each casing having a cavity formed therein; and
a liner disposed within ~~the~~ each cavity formed of a mixture of powdered heavy metal and powdered binder metal, the explosive material, upon detonation, operable to disintegrate the liner and propel the liner into the formation, perforating the formation, wherein the percentage of heavy metal in the mixture is within a range of approximately 91.0% to 99.98% by weight.

Claim 2. (Previously Presented) A shaped charge according to claim 1 wherein the heavy metal powder is chosen from the group consisting of tungsten, tantalum, gold, platinum, or any mixture thereof.

Claim 3. (Previously Presented) A shaped charge according to claim 1 wherein the heavy metal consists primarily of tungsten.

Claim 4. (Previously Presented) A shaped charge according to claim 1 wherein the percentage of heavy metal in the mixture is within a range of approximately 99.0% to 99.98% by weight.

Claim 5. (Previously Presented) A shaped charge according to claim 1 wherein the binder metal is chosen from the group consisting of copper, lead, zinc, tin, and bismuth.

Claim 6. (Previously Presented) A shaped charge according to claim 1 wherein the binder metal consists primarily of lead.

Claim 7. (Previously Presented) A shaped charge according to claim 1 wherein the mixture further comprises approximately 0.02% to 1.0% lubricant by weight.

Claim 8. (Previously Presented) A shaped charge according to claim 7 wherein the lubricant comprises powdered graphite.

Claim 9. (Previously Presented) A shaped charge according to claim 7 wherein the lubricant comprises oil.

Claim 10. (Previously Presented) A shaped charge according to claim 1 wherein the percentage of heavy metal in the mixture is approximately 93.0%.

Claim 11. (Currently Amended) ~~A shaped charge~~ An apparatus for use in a wellbore extending through a subterranean formation, the apparatus comprising:
a casing;
a perforating tool having a plurality of casings, each casing having a shaped charge;
an explosive material disposed within ~~the~~ each casing having a cavity formed therein; and
a liner disposed within ~~the~~ each cavity formed of heavy metal powder, coated with a binder metal, formed into a rigid body, the explosive material, upon detonation, operable to disintegrate the liner and propel the liner into the formation, perforating the formation.

Claim 12. (Previously Presented) A shaped charge according to claim 11 wherein the heavy metal powder is chosen from the group consisting of tungsten, tantalum, platinum, gold, or any mixture thereof.

Claim 13. (Previously Presented) A shaped charge according to claim 11 wherein the heavy metal comprises tungsten.

Claim 14. (Previously Presented) A shaped charge according to claim 11 wherein the binder metal is chosen from the group consisting of copper, tin, zinc, lead, bismuth or any mixture thereof.

Claim 15. (Previously Presented) A shaped charge according to claim 11 wherein the percentage of heavy metal in the heavy metal powder is within a range of approximately 91.0% to 99.98% by weight.

Claim 16. (Previously Presented) A shaped charge according to claim 11 wherein the percentage of heavy metal in the heavy metal liner is approximately 93.0%.

Claim 17. (Previously Presented) A shaped charge according to claim 11 wherein the percentage of heavy metal is within a range of approximately 99.0% to 99.98% by weight.

Claim 18. (Previously Presented) A shaped charge according to claim 11 wherein the heavy metal powder, coated with binder metal, is mixed with approximately 0.02% - 1.0% lubricant by weight.

Claim 19. (Previously Presented) A shaped charge according to claim 18 wherein the lubricant comprises powdered graphite.

Claim 20. (Previously Presented) A shaped charge according to claim 18 wherein the lubricant comprises oil.

Claim 21. (Currently Amended) ~~A shaped charge~~ An apparatus for use in a wellbore extending through a subterranean formation, the apparatus comprising:

~~a casing;~~

an explosive material disposed within ~~the~~ each casing having a cavity formed therein; and
a liner disposed within ~~the~~ each cavity formed of a mixture of powdered heavy metal, powdered metal binder, and a heavy metal powder coated with a binder metal formed into a rigid body, the explosive material, upon detonation, operable to disintegrate the liner and propel the liner into the formation, perforating the formation.

Claim 22. (Previously Presented) A shaped charge according to claim 21 wherein the rigid body is substantially conical.

Claim 23. (Canceled)

Claim 24. (Canceled)

Claim 25. (Previously Presented) A shaped charge according to claim 21 wherein the percentage of heavy metal in the mixture is within a range of approximately 90.0% to 99.98% by weight.

Claim 26. (Previously Presented) A shaped charge according to claim 21 wherein the percentage of heavy metal in the mixture is approximately 93.0%.

Claim 27. (Previously Presented) A shaped charge according to claim 21 wherein the heavy metal powder is chosen from the group consisting of tungsten, tantalum, gold, platinum, or any mixture thereof.

Claim 28. (Previously Presented) A shaped charge according to claim 21 wherein the heavy metal consists primarily of tungsten.

Claim 29. (Previously Presented) A shaped charge according to claim 21 wherein the percentage of heavy metal in the mixture is within a range of approximately 99.0% to 99.98% by weight.

Claim 30. (Previously Presented) A shaped charge according to claim 21 wherein the binder metal is chosen from the group consisting of copper, lead, zinc, tin, and bismuth.

Claim 31. (Previously Presented) A shaped charge according to claim 21 wherein the binder metal consists primarily of lead.

Claim 32. (Previously Presented) A shaped charge according to claim 21 wherein the mixture further comprises approximately 0.02% to 1.0% lubricant by weight.

Claim 33. (Previously Presented) A shaped charge according to claim 21 wherein the lubricant comprises powdered graphite.

Claim 34. (Previously Presented) A shaped charge according to claim 21 wherein the lubricant comprises oil.

Claim 35. (Previously Presented) A shaped charge according to claim 21 wherein the liner is compressively formed.

Claim 36. (Previously Presented) A shaped charge according to claim 1 wherein the liner is compressively formed.

Claim 37. (Previously Presented) A shaped charge according to claim 11 wherein the liner is compressively formed.